

CLAIMS

What is claimed is:

1. An LED flashlight construction comprising, in combination:
 - a molded plastic housing having a top end, a bottom light emitting end and a longitudinal, centerline axis extending from the top end to the bottom end, said housing including an elongate hollow tube section joined to a disc shaped battery chamber section;
 - said chamber section having a centerline axis forming an angle with a centerline axis of the tube, said tube section having an open end with bulb mounted therein;
 - a battery in the chamber section having an electrical connection from one pole to the bulb; and
 - a circuit assembly including pocket clip member attached to the housing and electrically connected to another pole of the battery in said chamber, said tube section including a passage aligned with the clip member, said clip member also connectable to a second circuit conductor electrically connected to the bulb in the tube by projecting through said passage in the tube section to complete a circuit with the battery, said pocket clip formed from an elastic, conductive material and normally disengaged from the second circuit conductor whereby, to activate the bulb, the clip member is elastically deformed to engage the second circuit conductor.

2. The construction of claim 1 wherein the chamber section includes a removable disc forming an end of said chamber section whereby the disc may be removed to effect replacement of a battery in the chamber section.

3. The construction of claim 1 wherein the diameter of the tube is in the range of 1/8 to 3/8 inch.

4. The construction of claim 1 wherein the bulb member is selected from the group consisting of an IR LED bulb, a UV LED bulb, and a white light LED bulb.

5. The construction of claim 1 wherein the first conductor comprises at least one conductive spring member for connection to the battery in the chamber section.

6. The construction of claim 1 wherein the battery comprises a bipolar disc battery electrically connected to the first conductor.

7. The construction of claim 1 including a plurality of disc shaped batteries in series in the chamber section.

8. The construction of claim 1 wherein the second conductor includes a conductive plate in the tube.

9. The construction of claim 1 wherein the pocket clip member is attached to the chamber section and includes at least one contact connected to the battery.

10. The construction of claim 1 wherein the housing is comprised of first and second mirror image sections joined to form a hollow elongate tube extending from a disc shaped chamber wherein the tube has an elongate axis generally normal to an elongate axis of the battery chamber.

11. The construction of claim 10 wherein the hollow tubular section is at least three times as long as the diameter of the disc chamber.